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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,065	12/01/2003	Yueh-Se (Joseph) Huang	GP-303205	2738
7590	08/25/2004		EXAMINER [REDACTED]	ENGLE, PATRICIA LYNN
KATHRYN A. MARRA General Motors Corporation Legal Staff, Mail Code 482-C23-B21 P.O. Box 300 Detroit, MI 48265-3000			ART UNIT 3612	PAPER NUMBER
DATE MAILED: 08/25/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/725,065	HUANG ET AL.
	Examiner	Art Unit
	Patricia L Engle	3612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 December 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/1/03</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____ .

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “235” has been used to designate both the underbody of the fourth module and the bonding area of the B-pillar. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to because reference character 100 should have a lead line with an arrowhead. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be

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labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 9 is objected to because of the following informalities: the semi-colon at the end of line 3 should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

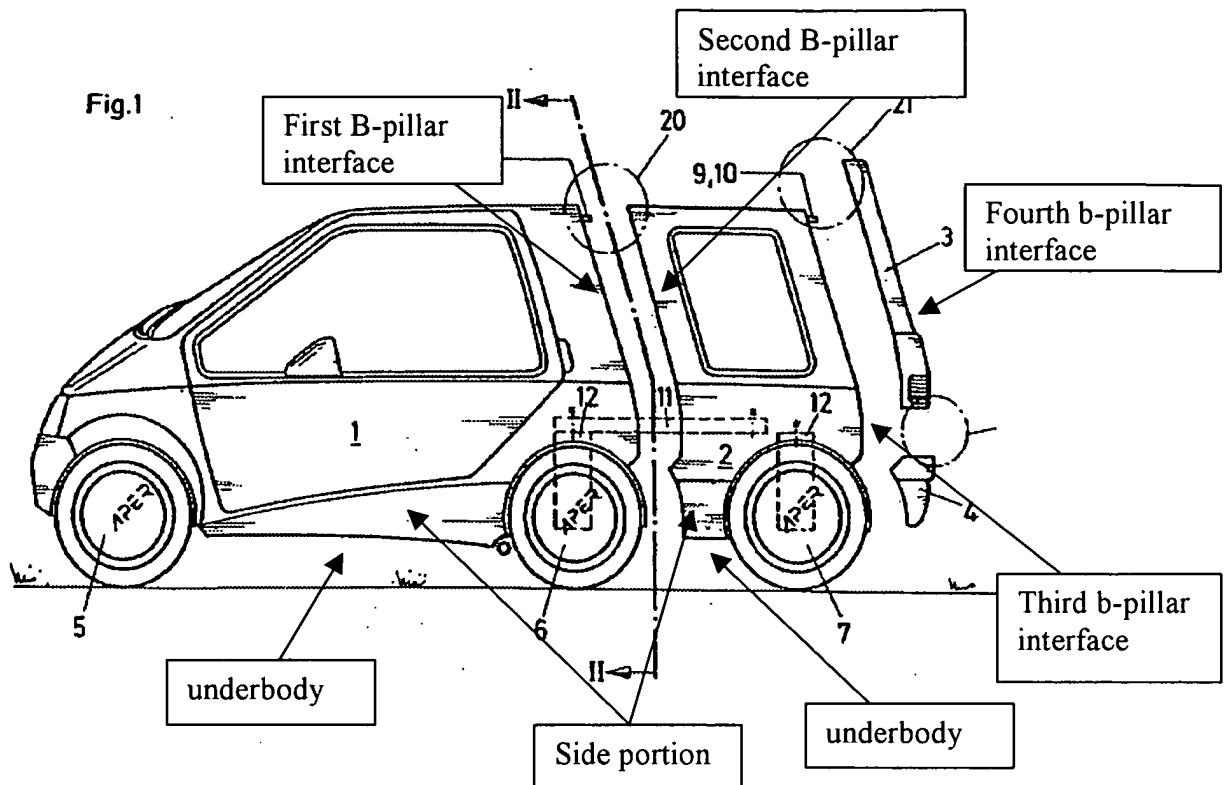
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6, 8, 9, 13, 14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Aper (US Patent 4,887,859).

Regarding claims 1 and 8, Aper discloses a modular body for a vehicle, comprising: a first module (1) having a first B-pillar interface (see below); and a second module (2) having a second B-pillar interface (see below); wherein the first (1) and second (2) modules are joined at the first and second B-pillar interfaces defining a B-pillar thereat.



Regarding claim 2, Aper discloses the modular body of Claim 1, wherein: the first module (1) includes two side portions (Fig. 2) and an underbody portion (Fig. 2); the second module (2) includes two side portions and an underbody portion; and the underbody portions of the first and second modules make up an underbody portion of the vehicle (see illustration above).

Regarding claim 3, Aper discloses the modular body of Claim 2, wherein: the first module (1) includes a top portion (inherent to Fig. 1); and the second module (2) includes a top portion (inherent to Fig. 1).

Regarding claim 4, Aper discloses the modular body of Claim 1, wherein the second module (2) further includes a third B-pillar interface (see above), and further comprising: a third

module (3) having a fourth B-pillar interface (see above); wherein the second (2) and third (3) modules are joined at the third and fourth B-pillar interfaces defining a second B-pillar thereat.

Regarding claim 6, Aper discloses the modular body of Claim 1, wherein the first and second B-pillar interfaces are slidably engaged (in Fig. 3, the bolt 9 which joins the two modules together is welded onto the first module (via bracket 8) and therefore the second module slide onto the bolt of the first module) with each other.

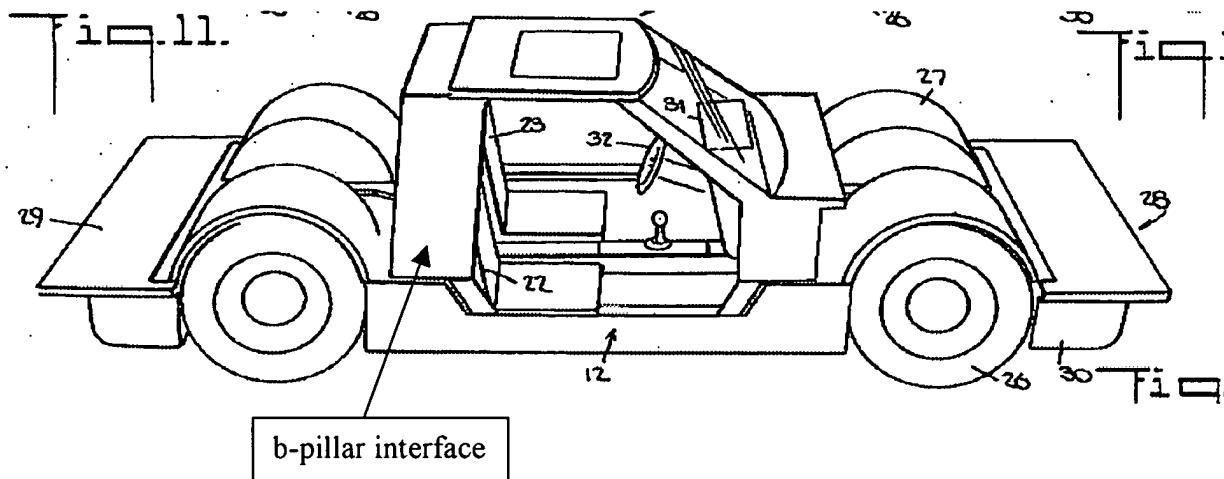
Regarding claim 9, Aper discloses the modular body of Claim 8, further comprising: a complete underbody (see above) made up from an underbody of the first module (1) and an underbody of the second module (2).

Regarding claims 13 and 18, Aper disclose the vehicle body. The method of assembling the vehicle body would be inherent.

Regarding claim 14, Aper disclose that the joining comprises a mechanical bonding (9,10).

6. Claims 1, 8 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Bonfilio et al. (US Patent 4,422,685).

Regarding claims 1 and 8, Bonfilio et al. discloses a modular body for a vehicle, comprising: a first module (30) having a first B-pillar interface (see below); and a second module (38A) having a second B-pillar interface (see Fig. 11, 10 or 13); wherein the first (30) and second (38A) modules are joined at the first and second B-pillar interfaces defining a B-pillar thereat.



Regarding claim 5, Bonfilio et al. disclose the modular body of Claim 1, wherein the first B-pillar interface is outboard of the second B-pillar interface (Figs. 11, 10 and 13 show that the b-pillar is continuous, therefore it would have been inherent that the second interface is inboard of the first interface).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 10-12 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aper in view of Bonfilio et al.

Aper discloses the modular body of claims 8 and 9 and a first and second C-pillar interface (third and fourth b-pillar in illustration under the Aper rejection above).

Aper does not disclose an Appillar interface.

Bonfilio et al. disclose a modular vehicle body in which the engine compartment is a third module connected at an A-pillar interface.

Aper and Bonfilio et al. are analogous art because they are from the same field of endeavor, i.e., modular vehicle bodies.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to make the engine compartment a third module joined to the first module at an A-pillar interface.

The motivation would have been to allow for different engine compartments to be used on the modular vehicle with different front end designs (Figs. 11-13 of Bonfilio et al. have different front end designs).

Therefore, it would have been obvious to combine Bonfilio et al. with Aper to obtain the invention as specified in claims 10 and 11.

Regarding claim 12, it would have been obvious to one of ordinary skill in the art to weld the modules together instead of using a mechanical bonding, as they are equivalent bonding

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means. The motivation would have been to provide a bond that does not take up a lot of space (the weld is a line where the two panels join wherein the bolt requires the bracket and the space for the bolt).

Regarding claims 15-17, Aper as modified disclose the vehicle body. The method of assembling the vehicle body would be inherent.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aper.

Aper discloses that the bond between the B-pillars is a mechanical bond. It would have been obvious to one of ordinary skill in the art to weld the modules together instead of using a mechanical bonding, as they are equivalent bonding means. The motivation would have been to provide a bond that does not take up a lot of space (the weld is a line where the two panels join wherein the bolt requires the bracket and the space for the bolt).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art discloses other modular vehicles.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L Engle whose telephone number is (703) 306-5777. The examiner can normally be reached on Monday - Friday from 8:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Glenn Dayoan can be reached on (703) 308-3102. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patricia L Engle
Examiner
Art Unit 3612

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August 16, 2004